AN 2003:950997 CAPLUS
DN 140:16648
TI Preparation of N-(arylmethoxycarbonyl)- and N-(arylmethylaminocarbonyl)piperidines as substance P receptor antagonists
IN Takahashi, Masami; Miyake, Tsutomu; Moritani, Yasunori; Asai, Hidetoshi; Ishii, Taketoshi; Kono, Rikako
PA Tanabe Seiyaku Co., Ltd., Japan
SO PCT Int. Appl., 307 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

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	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
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	JP 2004143139	A	20040520	JP 2003-148644	20030527
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	AU 2003240015	B2	20080103		
	BR 2003011410	A	20050315	BR 2003-11410	20030529
	EP 1513814	A1	20050316	EP 2003-733139	20030529
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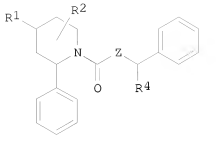

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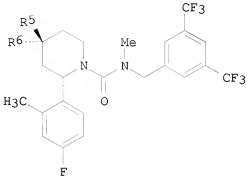


II

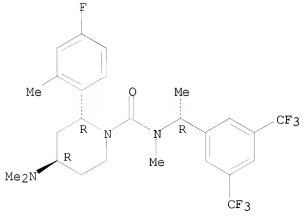
AB N-(arylmethoxycarbonyl)- and N-(arylmethylaminocarbonyl)piperidines I [R1 = alkyl, (un)substituted hydroxy, mercapto, carbonyl, sulfinyl, sulfonyl, R11R12N; R2 = H, halogen, (un)substituted hydroxy, amino, alkyl, or carbonyl group; R3, R4 = H, (un)substituted alkyl; R11, R12 = H, (un)substituted carbonyl, sulfonyl, alkyl, heterocyclyl (containing 1-4 nitrogen, oxygen, or sulfur atoms); R11R12N may form an (un)substituted heterocyclyl moiety from the list of piperidinyl, hexahydroazepinyl, pyrrolidinyl, imidazolidinyl, hexahydropyrimidinyl, thiazolidinyl, morpholinyl, triazolyl, tetrazolyl, purinyl; Z = O, NR3; both of the explicit Ph rings may be substituted] such as II are prepared as tachykinin receptor antagonists (and particularly substance P receptor antagonists) for the treatment of inflammation, allergies, pain, nausea, central nervous system and digestive diseases, and urinary and immune disorders. Addition of 4-fluoro-2-methylphenylmagnesium bromide to 4-methoxypyridine followed by acylation with benzyloxycarbonyl chloride, reduction of the dihydropiperidone with zinc and acetic acid, protection of the ketone as the di-Me acetal, reduction of the benzyloxycarbonyl group with hydrogen in the presence of palladium on carbon, addition of 3,5-(F3C)2C6H3CH2NHMe to 1,1'-carbonylimidazole followed by addition of the piperidine, acid cleavage of the acetal, and reduction of the ketone, gives a mixture of the racemic piperidinols II (R5 = H, HO; R6 = HO, H). Approx. 500 example compds. are prepared (no biol. data).

IT 578710-93-7P 578710-95-9P 578710-97-1P
578711-15-6P 578711-17-8P 578711-24-7P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(title compound; preparation of N-(arylmethoxycarbonyl)- and N-(arylmethylaminocarbonyl)piperidines as substance P receptor antagonists for the treatment of inflammation and conditions such as urinary disorders)

RN 578710-93-7 CAPLUS

CN 1-Piperidinecarboxamide, N-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl]-4-(dimethylamino)-2-(4-fluoro-2-methylphenyl)-N-methyl-, monohydrochloride, (2R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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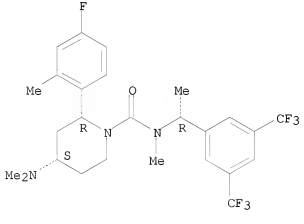
RN 578710-95-9 CAPLUS
CN 1-Piperidinecarboxamide, N-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl]-4-(dimethylamino)-2-(4-fluoro-2-methylphenyl)-N-methyl-, monohydrochloride, (2R,4S)- (9CI) (CA INDEX NAME)

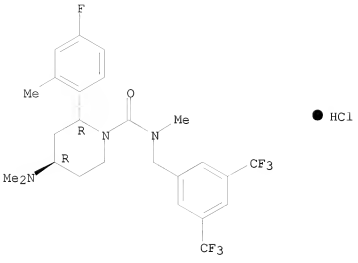
Absolute stereochemistry.



● HCl

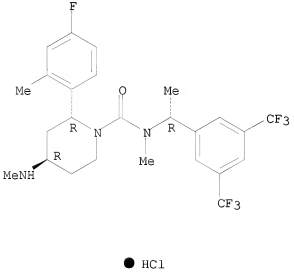
RN 578710-97-1 CAPLUS
CN 1-Piperidinecarboxamide, N-[[3,5-bis(trifluoromethyl)phenyl]methyl]-4-(dimethylamino)-2-(4-fluoro-2-methylphenyl)-N-methyl-, monohydrochloride, (2R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



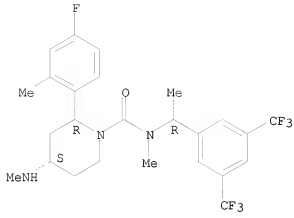
RN 578711-15-6 CAPLUS
CN 1-Piperidinecarboxamide, N-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl]-2-(4-fluoro-2-methylphenyl)-N-methyl-4-(methylamino)-, monohydrochloride, (2R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 578711-17-8 CAPLUS
CN 1-Piperidinecarboxamide, N-[(1R)-1-[3,5-bis(trifluoromethyl)phenyl]ethyl]-2-(4-fluoro-2-methylphenyl)-N-methyl-4-(methylamino)-, monohydrochloride, (2R,4S)- (9CI) (CA INDEX NAME)

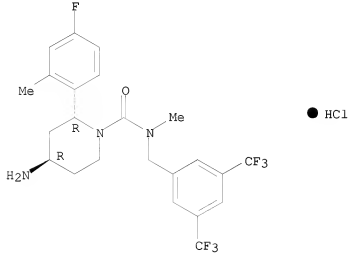
Absolute stereochemistry.



● HCl

RN 578711-24-7 CAPLUS
CN 1-Piperidinecarboxamide, 4-amino-N-[[3,5-bis(trifluoromethyl)phenyl]methyl]-2-(4-fluoro-2-methylphenyl)-N-methyl-, monohydrochloride, (2R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



● HCl